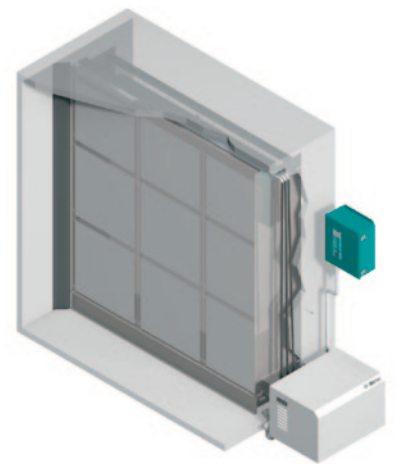




## Evaporative Humidifier/Cooler

The sustainable solution for  
humidifying and cooling



# MH Series™



data centers  
laboratories  
manufacturing  
institutional  
research facilities  
commercial  
automotive

**The NORTEC MH humidifier is the most cost-effective humidifier/cooler available today.**

Productivity and quality of life are directly affected by the indoor environment. People work better and feel better in favorable surroundings. So do products and machines! They all respond in various ways to changes in air quality, temperature and humidity. All three elements must be just right to maximize performance and reliability, both in humans and equipment. Correct humidity is critical, since too much humidity can be as destructive as too little.

Walter Meier is a world leader in state-of-the-art humidification technology. Our focus is concentrated exclusively on designing and building better humidification systems. Every NORTEC MH model has been engineered to meet the highest standards of cost-effective efficient performance. They are designed for ease of installation, adaptability, simplicity of operation, ease of maintenance and servicing, energy efficiency, cleanliness and long-term reliability.

Nortec MH evaporative humidifiers offer complete application flexibility to systems engineers, contractors and customers. They can be integrated into central air handling units or ventilation ducts.

With its stingy energy consumption the MH Series is a perfect compliment towards Green/LEED building design.

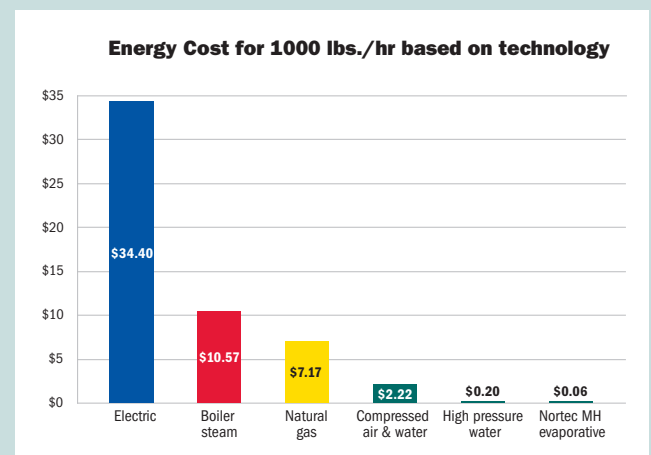
- ▶ Complete packaged system includes all components required for operation
- ▶ Evaporation process provides both humidity and sensible cooling simultaneously
- ▶ Efficient polyester media with industry leading fire rating
- ▶ Durable stainless steel construction
- ▶ Flow through and recirculation models available to meet the needs of any project



## Economy

The V-Profile polyester media improves the evaporation process by providing exceptionally high performance and efficiency. The large surface of the evaporation media results in a high evaporation rate with low energy consumption. The MH Series offers humidification efficiencies of up to 95%. The MH Series is suitable for high duty applications and when applying the Reflow model, the system captures the non-evaporated water and returns it to the water circulation system for reuse. The increased water efficiency has a very quick payback for building owners.

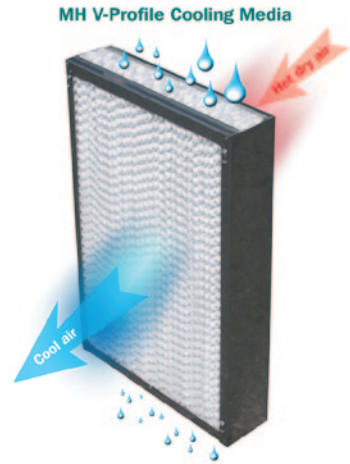
Saving water and energy as well as reducing operating costs is an important challenge in today's world. The NORTEC MH Series not only humidifies but can cool the air by up to 22°F (12.5°C) at high humidification efficiency and at a low cost.



### V-profile Media

The unique v-profile polyester media is the core of the MH series. As dry air passes through the wetted media, it evaporates water and picks up moisture. Since the energy required for evaporation comes from the air itself, the air downstream of the humidifier is both cooler and more humid. The v-profile of the media intensifies this process by directing air through formed channels in the media, greatly increasing the available surface for evaporation. Polyester media is free of harmful glass fibers and the ideal material for evaporative media.

- ▶ Hygroscopic Coating
- ▶ High Velocity Performance
- ▶ Low Pressure Losses
- ▶ UL 900 Class 1 Rating (USA)
- ▶ ULC-S111-07 Class 2 Rating (Canada)
- ▶ Suitable for all water types including potable, RO and DI
- ▶ No Droplets, Free of Aerosols



## MH Series™

Evaporative Humidifiers



### Total Control (TC) System

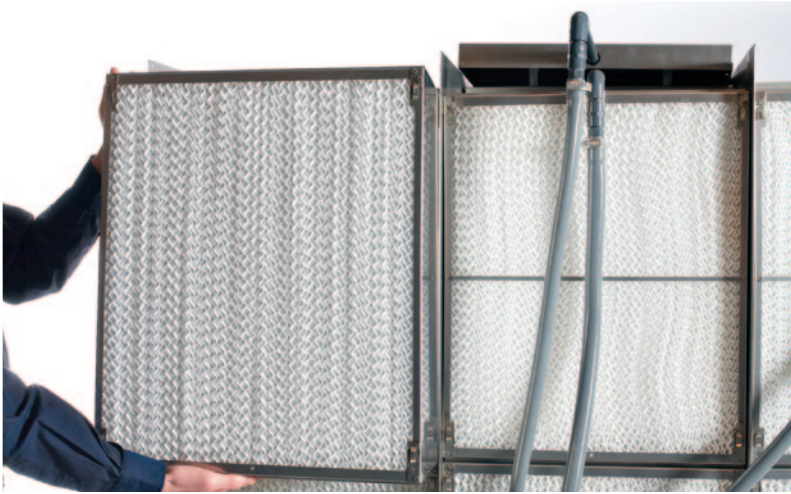
The TC system offers the most complete control of any evaporative humidifier/cooler on the market today! The advanced microprocessor controller controls the air humidity, smart water management featuring UV treatment and conductivity monitoring, plus advanced hygiene cycles and staging operations.

- ▶ Smart Water Management
- ▶ Advanced Hygiene Control
- ▶ Modbus interface standard
- ▶ Intuitive menu system
- ▶ Simple operation
- ▶ Available BACnet, LonWorks, N2 gateways
- ▶ NRTL-C Approved



## Models

The MH Series is available in two basic configurations. The **FLOW** directs excess water to drain and is excellent for locations with hard water. The highly efficient **REflow** model captures and reuses excess water in the humidifier. The choice of model depends on the application and the water quality supplied to the unit.



The **REflow** model features a unique hydraulic module that is installed external to the plenum. The hydraulic module contains the recirculation pump, water reservoir, sensors, and optional UV water treatment package. Keeping these components external makes them more accessible for servicing and removes the need to run wires into the plenum. As well this allows for better fire ratings on the humidifier since only media and metal are placed into the plenum.

A **FLOW Basic** (MHB) model is also available for projects that do not require a fully featured control or recirculation features. This model features a simple, factory configured controller, and is designed to provide cost effective way to add evaporative humidification and cooling to any project.

Features Comparison	MHB FLOW	MHTC FLOW	MHTC REflow
Operates on DI/RO, Potable, Soften Water	●	●	●
Recirculation Water System			●
Flow through Water System	●	●	
Total Control (TC) System with Full Backlit Display		●	●
Basic Control Panel	●		
Smart Water Management System			●
Adjustable Flush Cycles		●	●
Pre-cleaning Sequence		●	●
Smart Media Box Drying	●	●	●
Modbus protocol standard		●	●
Programmable Maintenance Settings		●	●
Step-Control 1, 2 or 3 Stage	●	●	●
Multi-Unit Networking		●	●
Display and Control of RH		●	●
Multiple Control Signal Acceptance	●	●	●
Operation History Log		●	●
Remote Fault Indication		●	●
Stainless Steel Reservoir	●	●	●
Stainless Side frames	●	●	●
V-Profile Polyester Media	●	●	●
Mist Eliminator V-Profile Polyester Media (above 750 fpm)	●	●	●
2 Year Limited Warranty *Excluding Media	●	●	●
Conductivity Smart Monitoring			○
Ultra Violet Water Treatment	○	○	○
Nortec LINKS XPS BAS gateways - BACnet, Lon Talk, N2		○	○

● = standard ○ = optional

### Ultra Violet Sterilization

For applications where higher hygienic requirements must be met an optional UV water treatment package is available. The ultra violet radiation from the discharge lamp sterilizes the water and controls potential microbial growth. Both Flow and REflow models can be equipped with this option.

### Conductivity Monitoring

Conductivity monitoring will continuously check the Total Dissolved Solid (TDS) content inside the water tank. The adjustable conductivity sensor then initiates drains accordingly. This feature is available for the REflow models only.

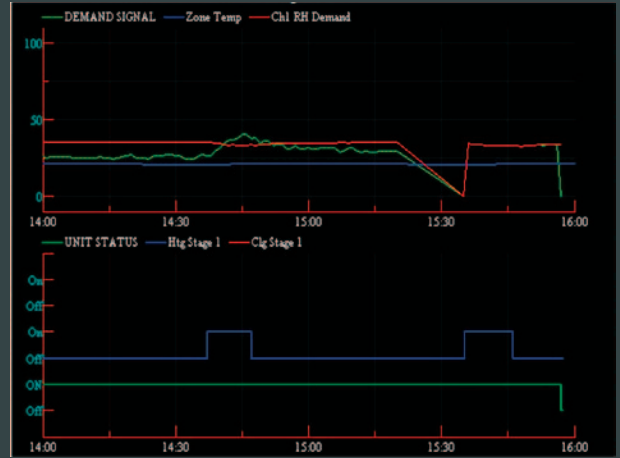
### Controls

Nortec offers a wide range of digital controls when selecting the MH product. The total controller allows easy integration into any local building management system with it's host protocol modbus. See Nortec LINKS XPS for other communication options.

# options

## NORTEC LINKS XPS

NORTEC LINKS XPS offers advanced monitoring and control allowing the MH units to communicate to your local Building Automation System (BAS) via BACnet MSTP or IP, LonWorks or N2 protocols.

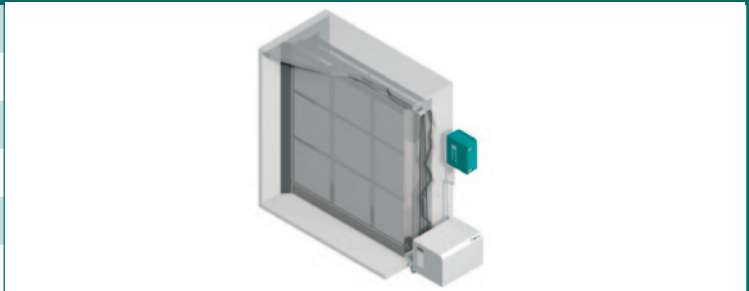




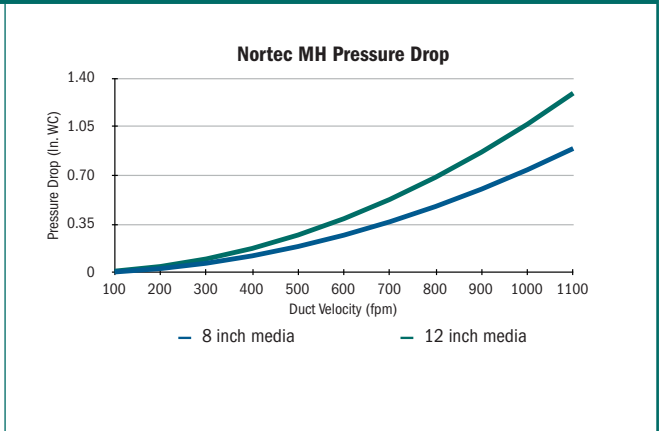
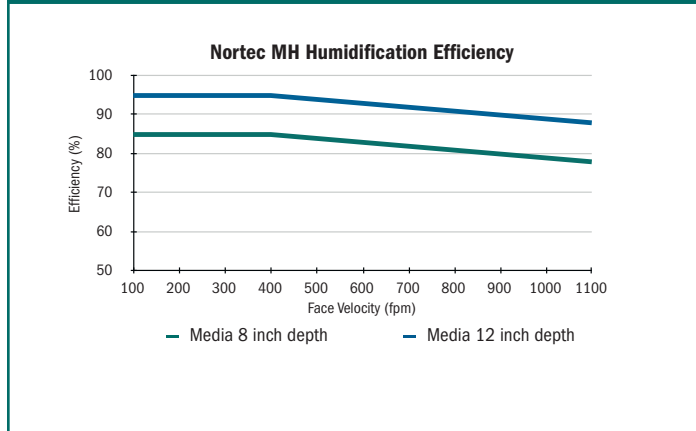
Specification	
Media Box Efficiency max.	85% and 95%
Maximum Face Velocity over Media	750 fpm (3.8 m/s)
Maximum Face Velocity with Integral Mist Eliminator	1080 fpm (5.5 m/s)
Pressure Drop at 500 fpm	0.25 IWC (62 Pa)
Fire Protection Rating	UL 900 Class I (USA), ULC-S111-07 Class 2 (Canada)
Power supply pump	120 VAC/1, 50 and 60 Hz
Power consumption	0.20 - 0.70 kw
Water supply pressure	30 - 145 psi
Unit Height	26" (650mm) - 130" (3300mm)
Unit Width	24" (610mm) - 130" (3300mm)
Unit Depth	30" (575mm)
Standards and guidelines	NRTL Approval, UL-900, ULC-S111-07

### INSTALLATION FEATURES & REQUIREMENTS

Pre-assembled hydraulic package for quick installation
Only three connections to be made- water, drain and electrical
Powered by a 120 V 1phase 60Hz connection
Stainless steel water tank and lateral supports
Tool free media box replacement
External hydraulic package for easy installation (REflow models)



### PERFORMANCE





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